

## REMARKS

### **A. Status of the Claims**

Claims 1, 5, 7-8, 9, 13, and 15-16 were currently pending in the case at the time of the Office Action, with claims 2-4, 6, 10-12, and 14 having been withdrawn from consideration as being directed to a non-elected invention. Claims 1 and 9 have been amended in the Amendment set forth herein. No claims have been canceled. New claims 17-18 have been added. Each of new claims 17-18 falls within the scope of the elected invention. Thus, claims 1, 5, 7-8, 13, and 15-18 are currently under consideration.

Support for the amendments to the claims and the new claims can be found generally throughout the specification, such as in the claims as originally filed. Specific examples of support include, but are not limited to, the following:

Claims 1 and 9 – para [0014], Example 5 (para [0159]), and the sequence listing.

New claims 17-18 – para [0003], [0004], [0007], [0009], [0014], and [0159].

### **B. The Rejections Under 35 U.S.C. §102(b) as Being Anticipated by Yamamoto Are Overcome**

Claims 1, 5, and 7 are rejected under 35 U.S.C. §102(b) as being anticipated by Yamamoto *et al.* (J. Biol. Chem. 272(19):12492-12494, 1997; hereinafter “Yamamoto”). Applicants respectfully traverse.

In order for a prior art reference to serve as an anticipatory reference, it must disclose every limitation of the claimed invention, either explicitly or inherently. See *In re Schreiber*, 128 F.3d 1473, 44 USPQ2d 1429, 1432 (Fed. Cir. 1997).

In the instant case, there is no anticipation because Yamamoto does not expressly or inherently disclose each limitation of the claimed invention. In particular, Yamamoto does not expressly or inherently disclose any method of identifying a compound that inhibits binding of MUC1 to a tumor progressor that involves “determining whether the test compound inhibits phosphorylation of the YEKV site of the MUC1 test agent” as recited in independent claims 1 and 9. Applicants identify no such determination of phosphorylation status in Yamamoto. Further, none of new claims 17-18 are anticipated by Yamamoto because they depend from either claim 1 (claim 17) or claim 9 (claim 18), which for the foregoing reasons are not anticipated.

In view of the foregoing, Yamamoto fails to anticipate the claimed invention. Applicants therefore respectfully request that the rejection of claims 1, 5, and 7 be withdrawn.

**C. The Rejections Under 35 U.S.C. §102(b) as Being Anticipated by Li Are Overcome**

Claims 1, 5, and 8 are rejected under 35 U.S.C. §102(b) as being anticipated by Li *et al.* (Mol. Cell Biol. 18(12):7216-7224, 1998; hereinafter “Li”). Applicants respectfully traverse.

There is no anticipation because Li does not expressly or inherently disclose each limitation of the claimed invention. In particular, Li does not expressly or inherently disclose any method of identifying a compound that inhibits binding of MUC1 to a tumor progressor that involves “determining whether the test compound inhibits phosphorylation of the YEKV site of the MUC1 test agent” as recited in independent claims 1 and 9. Li appears to concern interaction of GSK3 $\beta$  with MUC1. Rather than phosphorylating a YEKV site, Li specifically indicates that GSK3 $\beta$  phosphorylates MUC1/CD at an STDRSPYE site in MUC1. See abstract.

Further, none of new claims 17-18 are anticipated by Yamamoto because they depend from either claim 1 (claims 17) or claim 9 (claims 18), which for the foregoing reasons are not anticipated.

In view of the foregoing, Yamamoto fails to anticipate the claimed invention. Applicants therefore respectfully request that the rejection of claims 1, 5, and 7 be withdrawn.

**D. The Rejections Under 35 U.S.C. §103(a) Are Overcome**

Claims 9, 13, and 15-16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Brent *et al.* (U.S. Patent 6,004,746; hereinafter "Brent"). Applicants respectfully traverse.

There is no *prima facie* case of obviousness because Brent fails to teach or suggest each limitation of the claimed invention. Brent does not disclose MUC1, or any information regarding phosphorylation of a YEKV site in MUC1. Further, as admitted by the Examiner (page 6 of Office Action), Brent provides no explicit disclosure pertaining to the elected species,  $\beta$ -catenin. Further, Brent does not provide any disclosure pertaining to contacting a MUC1 test agent with a tumor progressor in the presence of a test compound, and determining whether the test compound inhibits phosphorylation of the YEKV site of MUC1. Each of the pending claims includes these limitations (see independent claims 1 and 9). In the absence of any teaching or suggestion pertaining to these aspects of the claimed methods, there can be no *prima facie* case of obviousness.

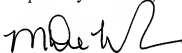
Further, for the foregoing reasons, none of new claims 17-18 are obvious as these claims depend from independent claims 1 and 9.

In view of the foregoing, there is no *prima facie* case of obviousness of the pending claims under 35 U.S.C. §103(a) based on Brent. Therefore, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. §103(a).

**E. Conclusion**

It is submitted that in light of the foregoing, each of the pending claims is in condition for allowance. Therefore, Applicant respectfully requests that the Examiner withdraw the rejections set forth in the most recent Office Action. The Examiner is invited to contact the undersigned attorney at (512) 536-5639 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,



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Date: December 12, 2007